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ABSTRACT

Methods are provided for altering the cleavage specificity of a Type IIG restriction endonuclease, the Type IIG restriction 5 endonuclease being characterized by a cleavage domain adjacent to a methylase domain, the methylase domain located adjacent to a specificity domain. The method includes ligating DNA or protein sequences to form a fusion DNA or 10 fusion protein. Where a fusion DNA is formed, the host cell is transformed with the fusion DNA to express a Type IIG restriction endonuclease with altered cleavage specificity.